

# Functions and Fractals: Sierpinski triangles

[illegible]

## Sierpinski Triangle

The [Sierpinski Triangle](#) is a pretty fractal which consists of layers of self-similar triangles, nested inside each other. This challenge involves the construction of such triangles, in the form of ASCII Art. The restriction is, that you need to accomplish this with functional programming, and you cannot declare even local variables!

We have to deal with real world constraints, so we cannot keep repeating the pattern infinitely. So, we will provide you a number of iterations, and you need to generate the ASCII version of the Sierpinski Triangle for those many iterations (or, levels of recursion). A few samples are provided below.

## Iteration #0

In the beginning, we simply print a triangle which points upwards. There are 32 rows and 63 columns in this matrix. The triangle is composed of underscores and ones as shown below.



